

Amendments to the claims:

1. (currently amended) A method of optimization of adjustable parameters of at least one machine, comprising the following steps:

of providing a data processing system; and

optimizing adjustable parameters by processing of at least one process algorithm provided in the data processing system;

selecting the process algorithm to be processed from a plurality of process algorithms; and proposing or automatically selecting a process algorithm by the data processing system depending on data selected from the group consisting of machine-internal data, machine-external data, and target data.

2. (currently amended) A method as defined in claim 1; and further comprising the step of determining the optimization of the adjustable ~~parameter~~ parameters by target data selected from the group consisting of editable target data, storable target data, and both.

3. (currently amended) A method as defined in claim 1; and further comprising the step of forming the data processing system as a diagnosis system.

4. (currently amended) A method as defined in claim 1; and further comprising the steps of processing ~~by the data processing system~~ machine-internal data with the data processing system and machine-external data with consideration of target data, and generating further-processible output data.

5. (currently amended) A method as defined in claim 4; and further comprising the steps of editing and storing the machine-internal data, the machine-external data and the output data by the data processing system.

6. (currently amended) A method as defined in claim 1; and further comprising the step of operating the data processing system in a time controlled manner.

7. (currently amended) A method as defined in claim 4; and further comprising using as the machine-internal data one of the

adjustable parameters parameter to be optimized, a further parameter and an internal expert knowledge.

8. (currently amended) A method as defined in claim 7; and further comprising the step of using ~~as the adjustable parameter to be optimized~~ a traveling speed, a rotary speed of at least one threshing drum and/or the rotary speed of a blower of at least one cleaning device as the adjustable parameters to be optimized.

9. (currently amended) A method as defined in claim 7; and further comprising the step of using ~~as the further parameter~~ a crop-specific and/or machine-specific parameter as the further parameter; and performing the determination of the further parameter by sensors which are in operative communication with the machine or by inputting.

10. (currently amended) A method as defined in claim 9; and further comprising the step of using ~~as the further parameter~~ a parameter selected from the group consisting of a grain loss, a grain throughput, a crop moisture, a crop total throughput and a broken corn portion as the further parameter.

11. (currently amended) A method as defined in claim 9; and further comprising the step of using as the further parameter adjustment regions for parameters of working units of the machine.

12. (currently amended) A method as defined in claim 5; and further comprising the steps of generating the machine-external data by external systems and using as the machine-external data plant-specific data, geographic data, weather data and/or external expert knowledge.

13. (currently amended) A method as defined in claim 12; and further comprising the step of using ~~as the external expert knowledge and as internal expert knowledge~~ crop and/or data and experience knowledge as the external expert knowledge and as internal expert knowledge.

14. (currently amended) A method as defined in claim 1; and further comprising the step of processing with the at least one process algorithm of the data processing device, of a diagnosis selected from the group consisting of process diagnosis, case diagnosis, model-oriented diagnosis, and combination thereof.

15. (canceled)

16. (canceled)

17. (currently amended) A method as defined in claim 1; and further comprising the step of defining situation patterns for the process algorithms by at least a part of data selected from the group consisting of machine-internal data, machine-external data, target data and combinations thereof; and selecting a situation pattern which comes close or is identical to an instantaneous situation pattern and a process algorithm linked to the situation pattern, depending on the at least one part of the machine-interior data and machine-exterior data with consideration of the target data which defines at least a part of an instantaneous situation pattern.

18. (currently amended) A method as defined in claim 1; and further comprising the step of generating changed process algorithms ~~generation~~ by the data processing system of ~~changed process algorithms~~ depending on machine-interior data and machine-exterior data and with consideration of changeable target data.

19. (currently amended) A method as defined in claim 1; and further comprising the step of generating changed situation patterns

by the data processing system in dependence on machine-interior data and machine-exterior data and with consideration of changeable target data.

20. (currently amended) A method as defined in claim 1; and further comprising the step of storing process algorithms, situation patterns or both in data sets, wherein the data sets which include at least a part of machine-internal data, machine-external data and target data.

21. (currently amended) A method as defined in claim 1; and further comprising the step of incorporating in ~~the~~ data processing system situation patterns and associated process algorithms and/or optimized adjustable parameters to be available for further machines.

22. (currently amended) A method as defined in claim 1, wherein the machine is an agricultural harvester; and further comprising the step of determining at least one process algorithm depending on harvesting conditions of the agricultural harvester.

23. (currently amended) A method as defined in claim 1; and further comprising the step of adapting the processing algorithm by expert questioning.